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The 1988 Iowa Corn Yield Test Report, District 1

K.E. Ziegler
Iowa State University

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Abstract

Results of the Iowa Com Yield Test are published to aid Iowa farmers in selecting com hybrids. This is the sixty-ninth consecutive year for the test.

Disciplines

Agriculture

IOWA STATE UNIVERSITY

AGRONOMY
• Crops
• Soils
• Climate

THE 1988 IOWA CORN YIELD TEST REPORT

District 1

Results of the Iowa Corn Yield Test are published to aid Iowa farmers in selecting corn hybrids. This is the sixty-ninth consecutive year for the test.

The presentation of data for the hybrids tested does not imply approval or endorsement by the authors or by the agencies sponsoring or conducting the test. Entries in tables 1 and 2 are designated by brand name and variety.

1988 Procedure

Producers of corn seed and Iowa State University were eligible to enter varieties in the Iowa Corn Yield Test. Each producer was allowed a maximum of six entries per district. All entries had to be available in a quantity of at least 10 bushels of seed.

One hundred eighty-two entries were evaluated in this test. Fifteen of the entries determined to be widely grown were entered by Iowa State University. In June, of even numbered years, approximately 21,000 survey cards are mailed in the state. Recipients of these cards are determined by a random drawing of names from land owners listed in the county plat books. Based on the survey results, the 15 hybrids grown on the most acres in the district are classified as widely grown for that district. The widely grown hybrids (*) in this report were determined by the 1986 survey. Iowa State University entered a maximum of three widely grown hybrids of any given brand. These entries were given priority over the remaining 167 entries made by seed producers.

Each entry was replicated four times in four-row plots at a planting rate of 25,500 kernels per acre at each location. All locations were machine-planted. The center two rows of each plot were harvested with a corn combine. No gleanings or dropped ears were included in yield data. A moisture determination was made from each plot, and yields were corrected to 15.5 percent moisture for shelled corn.

Starting with this 1988 report, data for protein, oil, and starch percentages will be included in the Iowa Corn Yield Test Report. Protein, oil, and starch were measured on a near-infrared reflectance analyzer that was calibrated against accepted chemical methods. Dr. Charles R. Hurburgh, Jr. of the Department of Agricultural Engineering at Iowa State University is responsible for analyzing the samples. Samples for nutrient analysis were collected from one field in each district. Data presented are averages of the four replicated plots in that field. To be consistant with the yield data, the protein, oil, and starch data were corrected to 15.5 percent moisture.

How Information Is Presented

The agronomic data presented are averages of two locations in 1986, 1987, and 1988. Yield in bushels per acre and percentage of moisture, root lodging, stalk lodging, dropped ears, and stand are shown for all entries in 1988 and for those tested in 1986 and 1987 that were in the 1988 test.

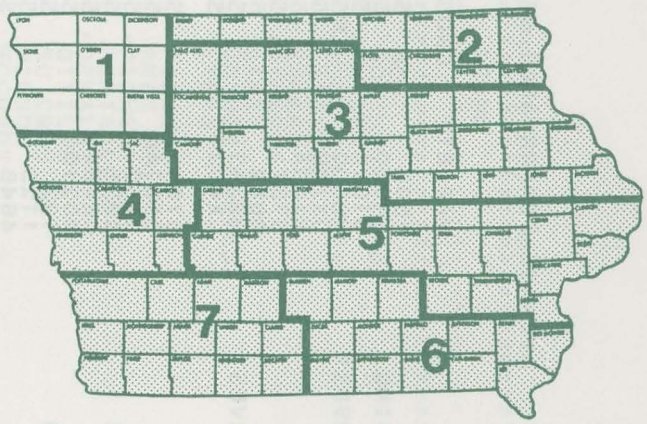
Interpretation of Results

Yield differences due to variation in soil, fertility, moisture availability, insect infestation, and diseases, plus any variation due to planting and harvesting techniques, are identified through statistical analysis. The LSD values for yield shown in tables 1 and 2 represent, in bushels per acre, the amounts of yield variation that could be due to variations in the factors just mentioned. In comparing varieties, yield differences greater than the LSD value can be attributed to genetic differences in the yield potential of these varieties; yield differences less than the LSD value are not statistically different and could have been due to other factors.

Grain moistures shown in tables 1 and 2 are indications of maturity and natural drying rate. Maturity of varieties entered generally ranged from early to full season. Yield comparisons should be made among varieties of similar maturity.

It is important to select varieties having stable performance over a range of environmental conditions. High yields for two or more consecutive years indicate stable performance. Supplemental yield and agronomic information about specific varieties may be obtained from your seed corn dealers and from neighbors who have grown these varieties.

Protein, oil, and starch percentages (table 1) are quality attributes important to many of the different end-users of corn. While these factors are not currently measured at corn markets, there is



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Prepared by K. E. Ziegler, instructor in agronomy.

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great interest in expanding the U.S. grain grading system to be more end-user oriented. This data is being reported because compositional analysis provides factors of economic importance to a wide range of corn end-users. Livestock feeders may want to utilize the compositional information in selecting hybrids to plant for feed use. For feed, protein will be of primary interest; for processing uses, oil and starch content are of importance. The protein percentage data reported are measures of crude protein and may not give an accurate indication of feed value if feed rations are balanced on individual amino acids rather than crude protein content.

1988 Field Data

The District 1 test was conducted on farms operated by William Morris near Sheldon in Sioux County and by the Jones Brothers near Rossie in Clay County. Field data are presented in table A.

Subsoil moisture for the district was favorable at planting time although topsoil moisture was short at some locations. Rainfall was below normal in April, well below normal in May, near normal in June and September, well above normal in August, and in July the Sioux County location received well below normal rainfall while the Clay County location received above normal rainfall. Temperatures were below normal in April, well above normal in May, June, and August, and above normal in July and September. The average district yield was 25 bushels per acre below the mean of the five preceding years' averages. Average location yields are listed in table A. Because of unfavorable growing conditions, variability of the data is greater than normal this year making use of the LSD value even more critical when comparing hybrids.

Other Reports

Separate reports for variety performance are available for each district shown in figure 1. These publications are available at your county extension office or from Publications Distribution, Printing and Publications Building, Iowa State University, Ames, Iowa 50011. Also, an IBM compatible diskette containing this data in a Lotus 1-2-3 spreadsheet along with a hybrid selection program is available from Extension Software Services, 108 Atanasoff Hall, Iowa State University, Ames, IA 50011. The cost of this diskette is $15. All seven districts can be purchased for $100. When ordering, along with the payment indicate diskette size, 3½ or 5¼, and district(s) wanted. Order forms are available from county extension offices.

The 1988 Iowa Corn Yield Test Report:
Pm-660-1-88 District 1
Pm-660-2-88 District 2
Pm-660-3-88 District 3
Pm-660-4-88 District 4
Pm-660-5-88 District 5
Pm-660-6-88 District 6
Pm-660-7-88 District 7

File: Agronomy 1

District 1
Designations Identifying Brands in the Yield Test

AGRIPRO	AgriPro, Tekemah, NE 68061
AMES BEST	Ames Best Hybrids, Ames, IA 50010
*ASGROW/O'S GOLD	Asgrow Seed Company, Kalamazoo, MI 49001
BETAGOLD	Betaseed, Inc., Shakopee, MN 55379
*CARGILL	Cargill Seeds, Minneapolis, MN 55440
CFS	Custom Farm Seed, Momence, IL 60954
COLT	Colt Seed Co., Storm Lake, IA 50588
COOP	Coop, Alta, IA 51002
CORNELIUS	Cornelius Seed Corn Co., Bellevue, IA 52031
CROWS	Crows Hybrid Corn Co., Milford, IL 60953
CURRY	Curry Seed Co., Elk Point, SD 57025
DAHLGREN	Dahlgren Seed Co., Crookston, MN 56716
DAIRYLAND	Dairyland Seed Co., West Bend, WI 53094
*DEKALB	Dekalb Pfizer Genetics, DeKalb, IL 60115
EK PREMIUM	EK Premium, Berwick, IL 61417
FEDERAL	Federal Hybrids, Marion, IA 52302
FONTANELLE	Fontanelle Hybrids, Nickerson, NE 68044
FS	Growmark, Inc., Bloomington, IL 61701
FUNK	Funk Seeds Int., Inc., Bloomington, IL 61701
*GARST	Garst Seed Co., Slater, IA 50244
*GOLDEN HARVEST	ROB-SEE-CO Golden Harvest, Waterloo, NE 68069
GOOD MORNING	Meis Seed & Feed Co., LeMars, IA 51031
GRUHN HYBRID	Gruhn Hybrids, Manilla, IA 51454
HAWKEYE HYBRID	Hawkeye Hybrids, Inc., Pella, IA 50219
HOEGEMEYER	Hoegemeyer Hybrids, Inc., Hooper, NE 68031
HORIZON	Horizon Seeds, Inc., Lincoln, NE 68501
HY-VIGOR	Hy-Vigor Seeds, Inc., Paullina, IA 51046
JACOBSEN	Jacobsen Hybrid Corn Co., Inc., Lake View, IA 51450
*JACQUES	Jacques Seed Company, Prescott, WI 54021
KALTENBERG	Kaltenberg Seed Farms, Waunakee, WI 53597
KING GRAIN	King Grain, Inc., Chatham, ON. Canada N7M 5L6
KRUGER	Kruger Seed Company, Dike, IA 50624
LINCOLN SEED	Lincoln Seed, Sioux City, IA 51101
LYNKS	Lynks Hybrids, Marshalltown, IA 50158
MARK	Mark Seed Co., Perry, IA 50220
MCCURDY	McCurdy Seed Co., Fremont, IA 52561
MELLOW DENT	Mellow Dent Seeds, Inc., Alta, IA 51002
NC+	NC+ Hybrids, Lincoln, NE 68504
*NORTHRUP KING	New Northrup King Co., Ames, IA 50010
OTTILIE	Ottilie R. O. Seeds, Marshalltown, IA 50158
PAYCO	Payco Seeds, Inc., Dassel, MN 55325
PFISTER	Pfister Hybrid Corn Co., El Paso, IL 61738
*PIONEER	Pioneer Hi-Bred International, Inc., Johnston, IA 50131
RENZE	Renze Hybrids, Inc., Carroll, IA 51401
S BRAND	Schechinger Seed Co., Harlan, IA 51537
SEEDTEC	SeedTec International, Inc., Carrollton, IL 62016
SU CROS CO	Su Cros Co., Inc., Manilla, IA 51454
SUPER CROST	Edward J. Funk & Sons, Inc., Kentland, IN 47951
TERRA	Terra Int., Inc., Champaign, IL 61820
TRI VALLEY	Tri Valley Seed, Council Bluffs, IA 51501
WILSON	Wilson Hybrids, Inc., Harlan, IA 51537

*Companies with one or more widely grown entries made by Iowa State University.

Table A. Field Data

	Morris Farm* Marcus silty clay loam			Jones Farm Everly clay loam		
Fertilizer applied, lb.	N	P_2O_5	K_2O	N	P_2O_5	K_2O
Plowdown	174	16	108	—	—	—
Preplant	—	—	—	130	80	110
TOTAL	174	16	108	130	80	110
1987 crop	Soybeans			Soybeans		
Row width	30 inches			30 inches		
Planting date	May 3			May 4		
Harvest date	Oct. 4 & 5			Oct. 5 & 6		
Average yield	95 bu/a			109 bu/a		

*Field sampled for protein, oil, and starch percentage data.

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TABLE 1. AVERAGE PERFORMANCE OF VARIETIES TESTED IN DISTRICT 1. 25,500 PLANTING RATE. LSD FOR 1988 YIELD IN BUSHELS IS 14. 1988 PROTEIN PCT LSD = 0.4. 1988 OIL PCT LSD = 0.2. 1988 STARCH PCT LSD = 0.8.

BRAND	VARIETY	CROSS	YIELD BU/A			MOISTURE PCT			ROOT LDG PCT			STALK LDG PCT			DROP EAR PCT			STAND PCT			PROTEIN PCT			OIL PCT			STARCH PCT			VARIETY	BRAND
			1986	1987	1988	1988	1987	1986	1988	1987	1986	1988	1987	1986	1988	1987	1986	1988	1987	1986	1988	1987	1986	1988	1987	1986	1988	1987	1986		
NC+	1505	SX	126	130	86	15.7	15.3	17.3	0	1	0	13	7	4	0	0	0	81	91	84	8.3	8.4		3.2	3.0		59.4	59.0		1505	NC+
NORTHRUP KING	N4350	SX		164	88	15.9	15.7		0	2		4	2		0	0		88	88		8.1	8.1		3.2	3.2		60.0	59.1		N4350	NORTHRUP KING
KRUGER	8101A	SX			98	16.0			0			7			0			88			7.8			3.3			60.1			8101A	KRUGER
*GOLDEN HARVEST	H2300	MSX	133	129	69	16.2	14.7	16.7	2	3	1	15	5	0	4	2	1	78	88	87	8.6	8.5		3.3	3.1		59.8	58.9		H2300	*GOLDEN HARVEST
DAIRYLAND	DX1095	SX			99	16.3			0			9			1			87			8.0			3.5			60.1			DX1095	DAIRYLAND
KRUGER	8100A	SX		132	83	16.3	16.0		0	1		4	5		1	0		87	89		7.8	7.8		3.4	3.6		60.3	60.2		8100A	KRUGER
*PIONEER	3737	SX	124	135	89	16.3	14.8	17.9	0	5	0	13	6	0	0	5	0	85	90	85	7.8	7.9		3.5	3.3		60.1	59.6		3737	*PIONEER
GARST	8882	SX		142	80	16.4	14.8		0	2		12	6		1	1		78	89		8.5	8.3		3.4	3.2		59.6	59.1		8882	GARST
GOLDEN HARVEST	H2343	SX		145	91	16.5	15.7		4	1		11	4		3	0		84	88		8.5	8.4		3.4	3.3		59.9	59.3		H2343	GOLDEN HARVEST
LYNKS	LX4024	SX			95	16.5			0			6			1			90			8.1			3.4			59.9			LX4024	LYNKS
PIONEER	3751	SX			90	16.6			0			3			1			85			8.1			3.4			59.8			3751	PIONEER
AMES BEST	SX37AA	SX		147	94	16.8	15.6		0	3		11	4		2	2		86	89		8.1	8.1		3.3	3.2		60.0	59.4		SX37AA	AMES BEST
*PIONEER	3732	SX	128	127	86	16.8	16.5	19.1	0	1	0	6	3	1	2	1	0	89	90	89	8.2	7.7		3.3	3.4		60.0	59.9		3732	*PIONEER
FONTANELLE	3935	SX			99	16.9			0			6			0			95			8.4			3.4			60.0			3935	FONTANELLE
*DEKALB	DK484	SX	130	151	91	17.0	15.9	18.4	0	1	1	10	6	2	1	2	0	82	87	88	8.3	8.3		3.3	3.3		59.8	59.5		DK484	*DEKALB
OTTILIE	RO2100	SX	131	138	95	17.0	15.8	18.1	0	2	1	11	5	2	1	1	0	82	92	91	7.9	8.1		3.5	3.4		60.2	59.6		RO2100	OTTILIE
SU CROS CO	103	SX		148	101	17.0	16.0		0	1		15	4		1	1		87	88		8.2	8.5		3.2	3.3		59.3	59.7		103	SU CROS CO
WILSON	1125	SX	132	136	94	17.0	15.7	17.8	0	6	0	11	6	1	2	2	0	86	89	88	8.1	8.4		3.3	3.3		59.5	59.3		1125	WILSON
MCCURDY	4646	SX			88	17.1			0			4			0			92			8.2			3.6			60.5			4646	MCCURDY
NORTHRUP KING	N4545	SX			108	17.1			0			4			0			91			7.9			3.4			60.0			N4545	NORTHRUP KING
FONTANELLE	3635	SX			94	17.2			0			13			1			89			8.0			3.8			60.4			3635	FONTANELLE
CROWS	195	SX			99	17.3			0			6			1			91			7.6			3.3			59.8			195	CROWS
PIONEER	3585	SX			102	17.3			0			6			2			93			8.6			3.5			60.1			3585	PIONEER
TERRA	TR103E	SX			90	17.4			0			7			0			83			8.6			3.3			59.6			TR103E	TERRA
*GARST	8711	SX		139	91	17.5	15.7		0	4		5	3		1	2		73	87		8.4	8.2		3.3	3.4		59.9	59.5		8711	*GARST
PIONEER	3615	SX	130	148	104	17.6	15.9	18.8	0	1	0	4	5	1	0	0	0	87	91	89	8.3	8.0		3.4	3.3		60.2	59.9		3615	PIONEER
AGRIPRO	560	SX	123	128	65	17.7	15.5	18.2	4	0	0	17	5	2	4	0	0	73	91	85	8.4	8.0		3.6	3.6		59.9	59.5		560	AGRIPRO
FUNK	G4234	SX			86	17.7			7			13			2			78			8.5			3.6			59.8			G4234	FUNK
GRUHN HYBRID	SX2A	SX	132	145	99	17.7	16.7	18.7	0	1	1	6	3	1	0	1	0	88	86	87	8.4	8.7		3.5	3.5		59.7	59.5		SX2A	GRUHN HYBRID
AMES BEST	AB105A	SX	117	141	89	17.9	16.4	19.3	0	2	1	10	8	1	2	2	1	88	87	83	8.3	8.1		3.6	3.4		60.2	59.8		AB105A	AMES BEST
*CARGILL	SX239	SX	138	149	97	17.9	17.0	19.1	0	1	1	10	6	1	1	1	0	96	86	90	8.3	8.2		3.5	3.6		59.8	59.7		SX239	*CARGILL
DEKALB	DK535	SX			98	18.0			0			4			0			90			7.6			3.4			60.3			DK535	DEKALB
CROWS	210	SX			105	18.1			0			3			0			90			8.3			3.4			60.0			210	CROWS
FUNK	G4309	SX			105	18.1			0			4			1			90			8.1			3.5			60.3			G4309	FUNK
AGRIPRO	AP364	SX		143	96	18.2	16.5		0	2		8	7		0	1		86	88		8.2	7.9		3.2	3.3		59.7	59.9		AP364	AGRIPRO
*ASGROW/O'S GOLD	6880	SX	145	163	103	18.2	17.3	18.4	1	1	1	9	3	1	1	0	0	90	90	93	8.4	8.7		3.6	3.3		60.1	59.1		6880	*ASGROW/O'S GOLD
CURRY	1445	SX			100	18.3			0			7			1			88			8.0			3.4			59.9			1445	CURRY
FS	4484	SX	134	161	110	18.3	16.8	20.1	0	1	0	5	1	0	0	0	0	88	85	85	7.4	8.1		3.2	3.2		60.0	59.4		4484	FS
CROWS	199	SX	133	143	99	18.5	16.0	18.5	0	1	1	5	4	1	1	1	0	81	90	88	8.8	8.6		3.3	3.2		59.6	59.2		199	CROWS
FEDERAL	FX29	SX	120	135	79	18.5	18.0	17.7	0	2	1	12	6	3	0	2	0	89	88	92	8.3	8.0		3.3	3.3		59.7	59.5		FX29	FEDERAL
LYNKS	LX4084	SX	135	153	104	18.5	16.7	19.7	0	0	1	4	3	1	1	0	0	87	91	92	8.2	8.1		3.5	3.5		59.9	59.7		LX4084	LYNKS
RENZE	6245	SX	130	161	106	18.5	16.8	19.4	0	1	0	7	2	3	1	0	0	86	88	86	8.0	8.0		3.2	3.1		59.9	59.1		6245	RENZE
AMES BEST	AB113AA	SX			103	18.6			0			2			1			83			7.9			3.2			59.4			AB113AA	AMES BEST
COLT	5950	SX			118	18.6			0			6			0			88			7.4			3.1			59.8			5950	COLT
NC+	2661	SX		155	91	18.6	17.4		0	0		9	3		1	0		86	89		8.3	8.1		3.4	3.6		59.9	60.2		2661	NC+
DAHLGREN	DC527	SX			114	18.7			0			6			1			89			7.7			3.1			59.6			DC527	DAHLGREN
FONTANELLE	SAR-4400	SX		146	94	18.7	16.5		0	1		6	3		0	0		86	86		8.5	8.3		3.5	3.5		59.6	59.5		SAR-4400	FONTANELLE
COOP	2045	SX		144	99	18.8	17.0		0	0		4	3		0	0		87	93		8.1	8.1		3.5	3.4		59.9	59.5		2045	COOP
CORNELIUS	C401	SX			108	18.8			0			5			0			92			8.1			3.5			60.1			C401	CORNELIUS
GARST	8708	SX			97	18.8			0			6			0			90			8.1			3.4			59.7			8708	GARST
GOOD MORNING	GM219	SX			92	18.8			0			7			1			95			8.4			3.4			60.0			GM219	GOOD MORNING
JACOBSEN	JS42	SX		154	94	18.8	16.8		0	2		5	3		0	0		86	91		8.2	8.1		3.5	3.5		59.9	59.8		JS42	JACOBSEN
NORTHRUP KING	S4590	SX		156	95	18.8	16.9		0	0		7	3		1	1		86	87		8.1	8.1		3.5	3.4		60.1	59.7		S4590	NORTHRUP KING
SEEDTEC	ST-7344	SX			100	18.8			0			3			0			86			8.0			3.5			60.1			ST-7344	SEEDTEC
CURRY	1446	SX			99	18.9			0			8			0			91			8.1			3.6			60.4			1446	CURRY
KALTENBERG	5200	SX	120	150	100	18.9	16.8	18.2	0	0	0	5	3	1	0	0	0	89	95	87	7.8	8.1		3.5	3.5		60.2	59.7		5200	KALTENBERG
KRUGER	8105	SX		149	94	18.9	17.1		0	0		5	2		0	0		86	87		8.0	8.1		3.5	3.6		60.1	60.1		8105	KRUGER
MCCURDY	4925	SX			110	18.9			0			4			0			86			7.6			3.3			60.1			4925	MCCURDY
OTTILIE	RO2320	SX		149	91	18.9	16.9		0	0		4	4		0	0		88	92		8.2	8.3		3.4	3.4		59.7	59.3		RO2320	OTTILIE
PFISTER	2250	SX		162	117	18.9	16.4		0	0		4	2		0	1		93	89		7.4	7.7		3.3	3.3		59.9	59.6		2250	PFISTER
TERRA	TR975	SX			94	18.9			0			5			0			92			8.3			3.6			60.2			TR975	TERRA
HOEGEMEYER	SX2576	SX			103	19.0			0			4			0			96			8.4			3.5			59.8			SX2576	HOEGEMEYER
RENZE	6131	SX			91	19.0			0			5			1			85			8.0			3.7			60.5			6131	RENZE
SU CROS CO	107	SX		168	114	19.0	17.3		0	1		4	4		0	2		89	89		7.3	8.1		3.3	3.2		60.2	59.5		107	SU CROS CO
ASGROW/O'S GOLD	RX578	SX		161	115	19.1	17.2		0	1		4	4		1	0		88	92		7.8	7.9		3.2	3.2		59.6	59.3		RX578	ASGROW/O'S GOLD
HY-VIGOR	5800	SX			101	19.1			0			7			1			90			8.2			3.5			60.0			5800	HY-VIGOR
KRUGER	8106	SX	139	155	99	19.1	17.1	19.0	0	0	0	6	1	1	0	0	0	81	92	81	7.9	7.7		3.3	3.4		59.9	60.1		8106	KRUGER
MELLOW DENT	9390	SX			93	19.1			0			4			0			90			8.2			3.4			60.0			9390	MELLOW DENT
COLT	5540	SX			96	19.2			0			3			1			81			8.0			3.7			60.7			5540	COLT
FONTANELLE	4030	SX	136	156	100	19.2	17.1	18.9	1	0	4	4	2	1	0	0	0	90	92	94	8.1	8.2		3.6	3.6		60.4	60.3		4030	FONTANELLE
GRUHN HYBRID	SX7AA	SX	129	144	98	19.2	17.2	20.0	0	7	2	8	7	1	2	1	0	89	90	92	8.4	8.2		3.3	3.3		59.4	59.8		SX7AA	GRUHN HYBRID
HORIZON	6101	SX		154	97	19.2	16.9		0	1		7	4		0	0		83	86		7.8	8.0		3.6	3.5		60.5	59.9		6101	HORIZON
SEEDTEC	ST-7440	SX		166	106	19.2	17.4		0	1		5	2		0	0		86	89		7.5	7.9		3.2	3.3		59.7	59.9		ST-7440	SEEDTEC
CURRY	1464	SX			96	19.3			0			3			1			72			8.3			3.7			60.0			1464	CURRY
FS	2368	SX		147	104	19.3	17.1		0	0		3	2		1	1		84	91		8.3	8.2		3.5	3.5		60.0	59.9		2368	FS
KRUGER	8108	SX			104	19.3			0			2			1			79			7.7			3.3			59.9			8108	KRUGER
MARK	MK87106	SX		149	113	19.3	17.0		0	2		4	3		0	1		88	90		7.7	7.8		3.2	3.4		60.0	60.4		MK87106	MARK
SUPERCROST	2445	SX			95	19.3			0			5			0			83			7.9			3.5			60.0			2445	SUPERCROST
DEKALB	DK547	SX			110	19.4			0			5			1			91			8.1			3.5			60.3			DK547	DEKALB
EK PREMIUM	EK7732	SX	129	156	102	19.4	17.0	19.6	0	1	2	6	2	0	0	1	1	90	94	82	8.2	8.3		3.5	3.2		60.0	58.8		EK7732	EK PREMIUM
JACQUES	5700	SX		151	93	19.4	17.1		0	1		6	1		0	0		84	91		8.1	8.1		3.6	3.5		60.1	60.0		5700	JACQUES
*NORTHRUP KING	S5750	SX	136	160	104	19.4	17.2	18.9	0	2	3	5	2	0	0	1	0	85	92	87	7.6	7.7		3.2	3.3		59.7	59.8		S5750	*NORTHRUP KING
PAYCO	SX648	SX			94	19.4			0			4			1			86			8.2			3.4			59.8			SX648	PAYCO
*PIONEER	3475	SX	131	145	102	19.4	18.5	19.8	0	0	0	4	3	1	0	2	0	84	87	86	7.8	7.6		3.5	3.5		60.2	60.2		3475	*PIONEER
SUPERCROST	3030	SX	130	168	110	19.4	17.5	19.7	0	0	0	6	4	1	1	0	0	91	91	89	7.9	8.0		3.6	3.5		60.3	59.8		3030	SUPERCROST
SUPERCROST	3130	SX			110	19.4			0			2			0			86			7.8			3.3			60.1			3130	SUPERCROST
ASGROW/O'S GOLD	RX626	SX		153	112	19.5	16.9		0	1		7	3		1	1		87	90		7.7	7.8		3.3	3.2		60.1	59.3		RX626	ASGROW/O'S GOLD
GOOD MORNING	GM221	SX	144	150	97	19.5	16.6	19.1	0	1	0	10	4	1	1	2	0	85	87	90	8.7	8.5		3.4	3.3		59.5	59.2		GM221	GOOD MORNING
HOEGEMEYER	SX2617	SX			114	19.5			0			6			0			92			7.7			3.2			59.8			SX2617	HOEGEMEYER
GOLDEN HARVEST	H2404	SX			94	19.6			0			7			0			87			8.9			3.6			59.7			H2404	GOLDEN HARVEST
MELLOW DENT	9425	SX			113	19.6			0			4			0			90			7.8			3.3			60.0			9425	MELLOW DENT
BETAGOLD	MARIA	SX			100	19.7			0			8			0			80			8.4			3.4			59.6			MARIA	BETAGOLD
DAIRYLAND	DX1103	SX		160	102	19.7	17.0		0	1		4	1		0	0		85	93		8.1	8.3		3.5	3.6		60.2	60.3		DX1103	DAIRYLAND
KALTENBERG	6205	SX			102	19.7			0			5			1			85			8.5			3.4			59.8			6205	KALTENBERG
MARK	MK86105	SX	145	151	121	19.7	16.9	19.6	0	0	1	4	2	1	0	1	0	91	87	95	8.3	8.5		3.5	3.3		59.8	58.9		MK86105	MARK
NC+	3884	SX			109	19.7			0			4			1			86			7.5			3.2			59.7			3884	NC+
*NORTHRUP KING	S5340	SX	131	144	100	19.7	18.1	20.3	0	0	5	9	10	1	2	1	1	88	93	87	8.2	7.5		3.6	3.5		60.1	59.7		S5340	*NORTHRUP KING
S BRAND	SS43A	SX			94	19.7			0			6			1			76			8.0			3.4			60.0			SS43A	S BRAND
AGRIPRO	680	SX	139	165	100	19.8	17.8	20.0	0	1	3	8	10	1	1	1	0	84	90	88	7.9	8.0		3.6	3.4		60.4	59.1		680	AGRIPRO
*ASGROW/O'S GOLD	2450	SX			104	19.8			0			5			0			89			8.0			3.5			59.9			2450	*ASGROW/O'S GOLD
DEKALB	DK572	SX		158	99	19.8	18.5		0	0		6	5		2	0		89	93		8.1	7.9		3.5	3.3		59.9	59.1		DK572	DEKALB
GOLDEN HARVEST	H2439	SX		170	117	19.8	17.9		0	8		4	4		0	0		88	87		8.3	8.5		3.5	3.4		60.0	59.3		H2439	GOLDEN HARVEST
GOLDEN HARVEST	H2486	SX			75	19.8			1			6			6			72			8.1			3.3			59.4			H2486	GOLDEN HARVEST
WILSON	1500B	SX	134	156	93	19.8	17.8	19.8	0	0	1	10	6	1	1	1	0	84	89	89	8.0	7.8		3.5	3.5		60.2	59.9		1500B	WILSON
FONTANELLE	4035	SX			100	19.9			0			6			0			88			8.4			3.5			60.0			4035	FONTANELLE
SU CROS CO	208	SX			108	19.9			0			6			0			90			7.9			3.5			60.3			208	SU CROS CO
CARGILL	6127	SX	134	155	107	20.0	17.6	19.9	0	1	3	7	6	1	1	1	0	97	90	92	8.2	7.8		3.5	3.5		60.1	59.8		6127	CARGILL
JACOBSEN	JS51	SX	138	158	98	20.0	17.8	20.5	0	1	0	9	4	1	0	1	0	83	84	90	8.0	7.9		3.6	3.4		60.3	59.4		JS51	JACOBSEN
*JACQUES	7700	SX	142	154	115	20.0	18.0	20.0	0	0	2	9	6	1	1	0	1	91	94	92	7.8	7.7		3.5	3.6		60.0	60.1		7700	*JACQUES
NC+	3440	SX	142	150	110	20.0	17.1	19.6	0	1	3	5	3	1	1	0	0	83	90	92	7.8	8.0		3.5	3.5		60.3	59.7		3440	NC+
PAYCO	SX786	SX			107	20.0			0			7			1			92			8.3			3.5			59.7			SX786	PAYCO
RENZE	6334	SX	132	159	105	20.0	18.0	20.4	0	0	2	6	5	1	1	2	0	88	90	96	7.9	8.0		3.6	3.5		60.2	59.9		6334	RENZE
DAHLGREN	DC535	SX			97	20.1			0			7			2			88			8.2			3.5			60.0			DC535	DAHLGREN
KING GRAIN	K5574	SX		144	99	20.1	17.9		0	0		9	5		1	0		85	88		7.8	7.8		3.5	3.5		59.7	59.7		K5574	KING GRAIN
AGRIPRO	644	SX	131	148	99	20.2	17.5	20.2	0	1	0	4	4	1	1	0	1	85	90	89	8.2	8.5		3.5	3.4		60.1	60.0		644	AGRIPRO
CARGILL	5927	SX			96	20.2			0			5			2			85			7.9			3.8			60.8			5927	CARGILL
GOLDEN HARVEST	H2438	SX			110	20.2			0			7			0			89			8.4			3.5			59.7			H2438	GOLDEN HARVEST
KRUGER	8109A	SX			94	20.2			0			5			0			80			8.4			3.4			59.7			8109A	KRUGER
S BRAND	SS44	SX			93	20.3			0			7			2			83			8.3			3.6			60.3			SS44	S BRAND
*GARST	8555	SX		147	104	20.4	17.8		0	0		11	7		0	0		88	88		8.0	7.9		3.6	3.4		59.9	59.6		8555	*GARST
HOEGEMEYER	SX2625	SX	145	146	106	20.4	17.9	20.4	0	1	2	8	3	2	0	0	1	90	86	90	7.9	8.2		3.6	3.4		60.2	59.5		SX2625	HOEGEMEYER
LINCOLN SEED	LS5518	SX			103	20.4			0			4			0			88			8.4			3.5			60.1			LS5518	LINCOLN SEED
PAYCO	SX872	SX	141	160	92	20.4	17.6	20.4	0	2	1	9	7	1	0	0	1	83	93	91	7.8	7.9		3.5	3.5		59.8	60.0		SX872	PAYCO
DAIRYLAND	DX1104	SX			98	20.5			0			7			1			80			8.3			3.5			59.9			DX1104	DAIRYLAND
RENZE	6250	MSX			102	20.5			0			5			0			93			8.1			3.5			59.9			6250	RENZE
SU CROS CO	108A	SX	139	149	103	20.5	17.8	20.1	0	0	0	8	4	3	0	2	1	87	89	90	8.0	7.9		3.5	3.4		60.1	59.7		108A	SU CROS CO
NC+	4131	SX		159	105	20.6	18.1		0	0		7	7		2	1		91	91		7.8	7.8		3.6	3.3		60.5	59.5		4131	NC+
TRI VALLEY	105	SX	141	163	103	20.6	17.0	19.7	0	3	3	6	1	1	0	0	1	86	84	93	8.2	8.2		3.5	3.5		60.0	59.7		105	TRI VALLEY
TRI VALLEY	109	SX	141	151	103	20.6	18.4	20.3	0	0	2	6	8	1	1	1	0	87	91	91	8.1	7.9		3.5	3.6		59.6	60.3		109	TRI VALLEY
GRUHN HYBRID	SX1A	SX		157	92	20.7	18.1		0	0		5	4		1	3		79	88		8.3	8.0		3.7	3.5		59.9	59.7		SX1A	GRUHN HYBRID
HORIZON	4111	SX	140	148	102	20.7	17.9	20.9	0	0	2	7	5	2	0	0	0	85	84	89	8.2	8.0		3.5	3.3		59.8	59.5		4111	HORIZON
OTTILIE	RO2420	SX	125

TABLE 2. AVERAGES OF 1987-88 AND 1986-88 OF VARIETIES
TESTED IN DISTRICT 1 . LSD FOR YIELDS ARE 6 BUSHELS
FOR 86-88 AND 9 BUSHELS FOR 87-88.

			YIELD BU/A		MOISTURE PCT		ROOT LDG PCT		STALK LDG PCT		DROP EAR PCT		STAND PCT	
BRAND	VARIETY	CROSS	86-88	87-88	87-88	86-88	86-88	87-88	86-88	87-88	86-88	87-88	86-88	87-88
*GOLDEN HARVEST	H2300	MSX	111	99	15.4	15.9	2	2	7	10	2	3	84	83
NC+	1505	SX	114	108	15.5	16.1	0	0	8	10	0	0	85	86
*PIONEER	3737	SX	116	112	15.5	16.3	2	2	6	9	2	2	86	87
GARST	8882	SX		111	15.6			1		9		1		83
NORTHRUP KING	N4350	SX		126	15.8			1		3		0		88
GOLDEN HARVEST	H2343	SX		118	16.1			3		7		2		86
KRUGER	8100A	SX		107	16.1			0		4		0		88
AMES BEST	SX37AA	SX		120	16.2			1		7		2		88
WILSON	1125	SX	120	115	16.3	16.8	2	3	6	9	1	2	88	87
OTTILIE	R02100	SX	121	116	16.4	17.0	1	1	6	8	1	1	88	87
*DEKALB	DK484	SX	124	121	16.4	17.1	1	1	6	8	1	1	86	84
SU CROS CO	103	SX		125	16.5			1		10		1		87
AGRIPRO	560	SX	105	96	16.6	17.1	1	2	8	11	1	2	83	82
*GARST	8711	SX		115	16.6			2		4		1		80
*PIONEER	3732	SX	114	107	16.6	17.5	0	1	3	4	1	1	89	89
PIONEER	3615	SX	127	126	16.7	17.4	0	0	3	4	0	0	89	89
AMES BEST	AB105A	SX	116	115	17.1	17.9	1	1	6	9	1	2	86	87
GRUHN HYBRID	SX2A	SX	125	122	17.2	17.7	1	0	3	5	0	1	87	87
CROWS	199	SX	125	121	17.3	17.7	1	1	3	5	1	1	86	85
AGRIPRO	AP364	SX		120	17.3			1		7		1		87
*CARGILL	SX239	SX	128	123	17.4	18.0	1	0	5	8	0	1	91	91
FS	4484	SX	135	135	17.5	18.4	0	1	2	3	0	0	86	86
LYNKS	LX4084	SX	131	128	17.6	18.3	0	0	3	4	0	0	90	89
FONTANELLE	SAR-4400	SX		120	17.6			0		5		0		86
RENZE	6245	SX	132	134	17.6	18.2	0	0	4	4	0	0	87	87
PFISTER	2250	SX		139	17.6			0		3		1		91
*ASGROW/O'S GOLD	6880	SX	137	133	17.7	18.0	1	1	4	6	0	0	91	90
JACOBSEN	JS42	SX		124	17.8			1		4		0		89
KALTENBERG	5200	SX	123	125	17.8	18.0	0	0	3	4	0	0	90	92
NORTHRUP KING	S4590	SX		126	17.8			0		5		1		86
OTTILIE	R02320	SX		120	17.9			0		4		0		90
COOP	2045	SX		121	17.9			0		3		0		90
NC+	2661	SX		123	18.0			0		6		0		87
KRUGER	8105	SX		122	18.0			0		3		0		86
GOOD MORNING	GM221	SX	130	123	18.0	18.4	0	1	5	7	1	2	87	86
HORIZON	6101	SX		125	18.0			0		5		0		84
KRUGER	8106	SX	131	127	18.1	18.4	0	0	3	3	0	0	85	86
FONTANELLE	4030	SX	131	128	18.1	18.4	2	0	2	3	0	0	92	91
MARK	MK87106	SX		131	18.1			1		4		0		89
ASGROW/O'S GOLD	RX578	SX		138	18.1			0		4		0		90
SU CROS CO	107	SX		141	18.1			1		4		1		89
FS	2368	SX		125	18.2			0		3		1		87
GRUHN HYBRID	SX7AA	SX	123	121	18.2	18.8	3	4	5	8	1	1	90	89
EK PREMIUM	EK7732	SX	129	129	18.2	18.7	1	1	3	4	1	1	89	92
ASGROW/O'S GOLD	RX626	SX		133	18.2			0		5		1		88
JACQUES	5700	SX		122	18.2			0		4		0		87
FEDERAL	FX29	SX	111	107	18.3	18.1	1	1	7	9	1	1	90	88
*NORTHRUP KING	S5750	SX	133	132	18.3	18.5	2	1	2	3	1	1	88	88
MARK	MK86105	SX	139	136	18.3	18.7	0	0	2	3	0	0	91	89
SEEDTEC	ST-7440	SX		136	18.3			0		4		0		87
DAIRYLAND	DX1103	SX		131	18.3			1		2		0		89
SUPERCROST	3030	SX	136	139	18.4	18.9	0	0	3	5	0	0	90	91
NC+	3440	SX	134	130	18.5	18.9	1	1	3	4	0	0	89	87
*DEKALB	DK556	SX		123	18.8			1		4		0		79
WILSON	1500B	SX	127	124	18.8	19.1	1	0	6	8	0	1	88	87
CARGILL	6127	SX	132	131	18.8	19.2	1	1	5	6	0	1	93	93
TRI VALLEY	105	SX	136	133	18.8	19.1	2	2	3	4	0	0	88	85
AGRIPRO	680	SX	135	133	18.8	19.2	1	1	6	9	0	1	87	87
AGRIPRO	644	SX	126	123	18.8	19.3	0	0	3	4	1	0	88	87
GOLDEN HARVEST	H2439	SX		143	18.8			4		4		0		88
*NORTHRUP KING	S5340	SX	125	122	18.9	19.4	2	0	6	9	1	1	89	90
JACOBSEN	JS51	SX	131	128	18.9	19.4	0	1	4	6	0	1	86	84
*PIONEER	3475	SX	126	123	18.9	19.2	0	0	3	3	1	1	86	85
PAYCO	SX872	SX	131	126	19.0	19.5	1	1	6	8	0	0	89	88
KING GRAIN	K5574	SX		121	19.0			0		7		1		87
*JACQUES	7700	SX	137	134	19.0	19.3	1	0	5	7	1	1	92	93
RENZE	6334	SX	132	132	19.0	19.5	1	0	4	5	1	1	91	89
*GARST	8555	SX		126	19.1			0		9		0		88
HOEGEMEYER	SX2625	SX	132	126	19.1	19.6	1	1	4	5	0	0	89	88
SU CROS CO	108A	SX	130	126	19.1	19.5	0	0	5	6	1	1	89	88
DEKALB	DK572	SX		128	19.1			0		6		1		91
COLT	4623	SX		125	19.2			0		9		1		85
OTTILIE	R02420	SX	121	120	19.3	19.8	1	1	5	8	2	1	88	88
HORIZON	4111	SX	130	125	19.3	19.8	1	0	5	6	0	0	86	85
NC+	4131	SX		132	19.3			0		7		2		91
MCCURDY	5750	SX	131	122	19.4	19.6	1	0	4	5	0	0	88	88
HY-VIGOR	6200	SX	122	115	19.4	19.7	1	0	5	8	2	3	83	80
GRUHN HYBRID	SX1A	SX		125	19.4			0		4		2		83
DAIRYLAND	DX1107	SX	126	125	19.5	20.0	1	0	6	9	1	1	88	88
TRI VALLEY	109	SX	132	127	19.5	19.8	1	0	5	7	1	1	89	89
FS	6566	SX	128	121	19.6	19.9	1	0	6	8	1	1	86	83
S BRAND	SS57A	SX		144	20.3			0		4		0		89
CROWS	442	SX		123	20.5			1		6		2		81
OTTILIE	R02460	SX	147	150	20.7	21.2	1	2	2	3	2	2	91	89
GOOD MORNING	GM245	SX	145	143	20.7	20.7	1	2	4	6	1	1	86	83
CORNELIUS	C612	SX		141	20.8			0		2		1		89
GRUHN HYBRID	SX5A	SX	134	138	21.0	21.1	1	1	2	3	0	0	87	88
EK PREMIUM	EK7780	SX	129	133	21.0	21.5	2	2	3	5	1	1	84	83
HAWKEYE HYBRID	SX43	SX		148	21.1			0		3		0		92
LINCOLN SEED	LS5433	SX	128	126	21.1	20.8	2	2	3	4	0	0	85	84
S BRAND	SS54A	SXB		141	21.1			0		8		1		88
*DEKALB	T1100	SX	136	136	21.2	21.3	2	2	5	8	0	0	87	87
CROWS	488	SX		135	21.2			2		5		1		87
RENZE	6354	SX		142	21.5			1		4		1		88
SU CROS CO	109	SX		143	21.5			0		1		0		89
CROWS	482	SX		131	21.8			1		5		1		85
S BRAND	SS62A	SX		150	22.4			0		9		1		87
KING GRAIN	K647	SX		143	22.5			1		4		1		89
CFS	7501	SX	140	145	22.5	22.7	0	0	2	4	0	0	86	88
AVERAGE OF ALL ENTRIES			128.2	127.0	18.9	18.6	0.9	0.7	4.4	5.6	0.7	0.8	87.9	87.3
AVERAGE OF WIDELY GROWN ENTRIES			126.1	121.8	18.2	17.9	1.1	1.0	4.9	6.7	0.9	1.1	88.2	86.9